

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number
WO 2005/053152 A1

(51) International Patent Classification⁷: **H03F 1/32**

(21) International Application Number:
PCT/NL2003/000833

(22) International Filing Date:
26 November 2003 (26.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): **TELEFONAKTIEBOLAGET LM ERICSSON (publ)**
[SE/SE]; SE-164 83 Stockholm (SE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **KOKKELER, André**
[NL/NL]; Boekweit 11, NL-7623 HB Borne (NL).

(74) Agent: **PRINS, A., W.**; Vereenigde, Johan de Wittlaan 7,
NL-2517 JR Den Haag (NL).

(81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,

CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

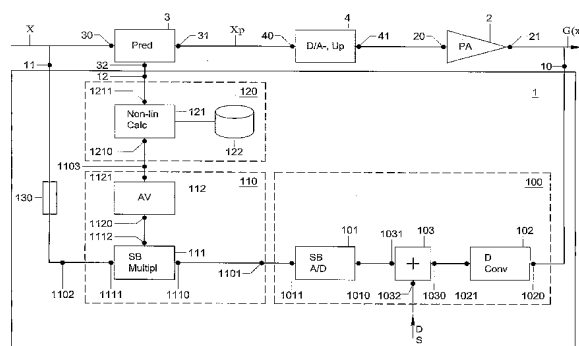
(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PREDISTORTION CONTROL DEVICE AND METHOD, ASSEMBLY INCLUDING A PREDISTORTION CONTROL DEVICE



(57) Abstract: A predistortion control device (1). The device has a first predistortion control input connectable to a power amplifier output (21); a second predistortion control input (11) connectable to a signal contact of a predistortion device; and a predistortion control output (12) connectable to a control contact of the predistortion device. The predistortion control device (1) further includes a cross-correlator device (110). The cross-correlator device (110) is connected with a first cross-correlator input (1101, 1101I, 1101Q) to the first predistortion control input and a second cross-correlator input (1102, 1102I, 1102Q) to the second predistortion control input (11). The cross-correlator device (110) is further has a cross-correlator output (1112) at which a cross-correlation signal can be presented, the cross-correlation signal representing a measured cross-correlation of signals presented at the first cross-correlator input (1101, 1101I, 1101Q) and the second cross-correlator input (1102, 1102I, 1102Q). The predistortion control device (1) further has a predistortion function selector device (120) (120), connected with a selector input to the cross-correlator output (1112), and with a selector output to the predistortion control output (12), at which selector output a predistortion control signal can be presented. The predistortion control signal representing a predistortion function determined on the basis of said cross-correlator signal.



WO 2005/053152 A1